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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/766,206	01/29/2004	Kenichi Miyamoto	ASAM.0105	3339	
7590	12/23/2005		EXAMINER CASTRO, ANGEL A		
Stanley P. Fisher Reed Smith Hazel & Thomas LLP 3110 Fairview Park Drive, Suite 1400 Falls Church, VA 22042-4503			ART UNIT		PAPER NUMBER
			2653		

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/766,206	MIYAMOTO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Angel A. Castro	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 6 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Species I in the reply filed on 11/28/05 is acknowledged.
2. Claims 4, 8-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species. Election was made **without** traverse in the reply filed on 11/28/05.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claim what is meaning by "to separate exhaust form the stages in the rack" as recited in lines 2-3.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al (JP 02-098197).

Regarding claim 1, Takahashi et al discloses a disk array apparatus (figures 7-10) comprising:

a plurality of disk boxes each generally taking the shape of a rectangular solid, and each having an air intake plane through which air flows in and an exhaust plane provided at an end opposite to that of the air intake plane, a plurality of disk drives being to be aligned and installed in each of the disk boxes (see figure 9);

a rack nearly taking the shape of a rectangular solid, disk units 12 being accommodated in the rack so as to form a plurality of stages in a vertical direction, each of the disk units being formed by putting two of the disk boxes back to back via a gap therebetween in a horizontal direction with the exhaust planes respectively of the two disk boxes being opposed to each other, ventilation being created to flow through planes of the rack respectively perpendicular to the air intake planes of the disk boxes and then through a top plane of the rack, a draft path having a width generally equivalent to a lateral width of the rack and extending in the vertical direction being formed by the gaps of the disk units accommodated in the rack; and

an exhaust device 111, 361, 362, disposed at an upper part of the rack, air within the rack being sucked in from the air intake planes of the disk boxes by the exhaust device so as to pass through the exhaust planes of the disk boxes and the draft path, and being exhausted through the top plane of the rack to outside by the exhaust device,

wherein the exhaust device is disposed with a substantially entire surface of an air intake port of the exhaust device facing a cross-section of the draft path (see figure 7).

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Coglitore et al (U.S. Pat. 6,496,366).

Regarding claim 1, Coglitore et al discloses the claimed invention (see figure 6).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al or Coglitore et al in view of Young et al (U.S. Pat. 6,018,456).

Regarding claim 5, Takahashi et al or Coglitore et al discloses the disk array apparatus described above including a DC power supply. Neither Takahashi et al nor Coglitore et al specifically disclose a battery for supplying power when a trouble has occurred in the DC power supply, the DC power supply and the battery being accommodated in a lowest stage of the rack. Young et al discloses a power supply 34 accommodated in a lowest stage of the rack and a battery 40d for supplying power when a trouble has occurred in the DC power supply (column 7, lines 26-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk array apparatus of Takahashi et al or Coglitore et al with the power supply and battery arrangement as taught by Young et al.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the disk array apparatus of Takahashi et al or Coglitore et al with the power supply and

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battery arrangement as taught by Young et al as doing this would ensure an increased reliability of the array.

***Allowable Subject Matter***

10. Claims 2-3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A. Castro whose telephone number is 571-272-7584. The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ANGEL CASTRO**  
**PRIMARY EXAMINER**  
Angel Castro, Ph.D.